

## **NWIRP/Grumman-February 2, 2016 Groundwater Quarterly Coordination Meeting Agenda and Meeting Notes (in blue)**

### Attendees:

Bob Schick, DEC-Director, DER  
Michael Ryan, DEC-Assistant Director, DER  
Jim Harrington, DEC-Director, Remedial Bureau A, DER  
Stan Carey, Superintendent, MWD  
Michael Boufis, Superintendent, BWD  
Richard Humann, H2M (representing BWD)  
Francis Koch, Superintendent SFWD  
John Reinhardt, Commissioner, Town of Hempstead Department of Water  
Bill Merklin, D&B (representing TOH)  
Gary Loesch, H2M (representing SFWD)  
Catherine McCabe, EPA-Deputy Regional Administrator  
Doug Garbarini, EPA-Branch Chief, NYRB  
Pete Mannino, EPA-Section Chief, WNYRS  
Richard Mach, OASN (EI&E)  
Lora Fly, NAVFAC-Mid-Atlantic  
Ed Hannon, NG ESH&M  
Mike Wolfert, ARCADIS

1. **Status of efforts regarding Chapter 543 of the Laws of 2014 – evaluation of options relative to the groundwater plume associated with the former Navy/Grumman Bethpage facility**
  - a. **Draft report groundwater control options and cost (DEC).** DEC indicated that they are in the process of drafting a comprehensive report addressing each component of the law. DEC has provided minor comments to their contractor, HDR, on the draft groundwater control options portion of the report. The draft groundwater control options report prepared by HDR only addresses a portion of the requirements of the law and DEC is drafting the remaining components. The comments to HDR included a request to develop a hybrid approach for the disposal of the treated water. The hybrid approach would include a combination of disposal options including Massapequa Creek, the sewer system, and an infiltration basin. The inclusion of a hybrid approach is based on input received during DEC's meeting with Assemblyman Saladino. DEC expects to receive the modified report from HDR by 2/9. DEC's goal is to release the comprehensive report in March/April. DEC indicated that they do not have approval to release the report and it is expected that the Governor's office would decide on the procedures for the release of the report.
2. **ONCT Operations (NG).** Northrop Grumman (NG) provided a power point presentation (attached). As part of this presentation, NG provided an update to the ONCT effectiveness evaluation. The update included the additional data collected subsequent to the previous evaluation required by the Order. NG presented data to demonstrate that plume bifurcation at the property line in the deep zone is occurring. An increase in

VOC concentrations has been observed in GM-21D2, which is located within the capture zone. NG intends to sample this well monthly as it investigates and accesses possible causes. NG intends to provide an update regarding this effort at the next quarterly meeting.

With respect to a question raised regarding the transmission of data to the water districts, the parties provided their opinions as to whether or not the Navy and NG were providing data in a timely manner. Richard Humann wanted an opportunity to check his records. Otherwise, the parties at the meeting were satisfied that they were receiving the data in a timely manner and that the requirements regarding the transmission of data are being met. The Navy also noted that it provides notice to the parties with respect to upcoming sampling activities and provides the water districts an opportunity to collect split samples.

NG indicated that the last periodic technical exchange meeting between the Navy and NG was held in August 2015.

3. **OU 3 Update (NG).** NG provided a power point presentation. Based on the results from the groundwater monitoring wells installed, NG feels that additional data collection may be warranted west of VP-1. The analytical results have revealed concentrations of 1,4-dioxane ranging from non-detect to a maximum concentration of 114 ppb at MW 3-1. The draft investigation report is due to DEC by 2/15.
4. **Bethpage Plant 6 treatment upgrade project – status (BWD).** No change in status.
5. **OU 2 Update.**
  - a. **Plant 6 Pilot - Status of approvals (DEC).** As of 2/2, approval from the State has not been received. BWD is supportive of the proposed capture zone analysis and indicated that they have been talking to Nassau County Dept. of Health. Based on conversations as recent as 1/29, Nassau County Dept. of Health has stated to BWD that the department is on board to support a capture zone analysis. BWD offered to call representatives at NYSDOH to discuss. DEC will look into who at NYSDOH BWD could call.
  - b. **Status of submittals required by OU2 Consent Order (DEC approvals)**
    - Citizen Participation Plan – conditionally approved by DEC on 8/2015
    - ONCT Effectiveness Study – submitted in 5/2015 (under review)
    - RD/RA Work Plan (including OM&M) – submitted in 5/2015 (accepted by DEC)
    - GW Monitoring Plan –submitted in 5/2015 and conditionally approved by DEC in 6/2015
  - c. **Navy/NG coordination on Hotspot work (Navy/NG).** Due to the uncertainty with the schedule for the commencement of the capture zone analysis, the Navy indicated that it is considering a new approach which would be comprised of standalone systems, instead of supplementing Plant 6. The Navy is looking for 2 acre parcels; it was noted

that concerns related to noise are likely to be an issue. In the March/April timeframe, the Navy expects to identify some potential properties and then set up a work session with the water districts to discuss property identification/access/coordination. The Navy's presentation included a schedule for the path forward, including the installation of two extraction wells in late 2016. Construction start-up is targeted for 2021/2022, which continues to be a concern for many of the parties at the meeting.

- d. **Additional delineation (Navy).** The Navy provided a power point presentation (attached). The Navy discussed the status of the vertical profile boring installation program and the schedule for the installation for permanent monitoring wells at the locations of recent VPBs. Preliminary results for some of the wells were discussed. The Navy noted that in VPB 165, Freon 113 was detected at a concentration of 170 ppb at a depth of 580 feet. The maximum concentration of TCE detected in this VPB was 95 ppb at a depth of 498 -500 feet. The elevated concentration of Freon 113 in this VPB is not consistent with the data for the site. The Navy indicated that it was evaluating whether geothermal wells were present in the area and potentially a source of the Freon detected. The LWD indicated that Freon has been detected in the district's Well 13 and 7A.
  - e. **Evaluation of options for disposition of treated water (NG/Navy).** Refer to 5c, above.
  - f. **Property needs for remedy implementation (open).** Refer to 5c, above.
6. **Additional discussion of potential for use of wells at BWD Plants 4,5,6 as remediation wells should BWD cease using them as public water supply wells (placeholder for future discussion).**
7. **DEC radium 226 and 228 sampling (DEC).** NG will be transmitting the analytical results for the radiological, VOC, and 1,4-dioxane sampling conducted by NG. DEC expects to transmit the analytical results from the radiological sampling conducted by DEC by 2/5. The maximum concentration of 8.59 pico curies per gram was detected in GM-15. DEC indicated that although some of the results are greater than background concentrations, it appears to be naturally occurring. Rich Humann raised questions as to whether the NWIRP and/or Grumman site is the source of radium-226 and radium-228.

BWD Plant well 4-1 is out of service due to exceedances of Health Department's drinking water standard of 5 pico curies per gram. BWD indicated that the Health Department is also concerned with the concentrations in well 4-2.

8. **1,4-dioxane and TCE sampling- CSIA (MWD/NG/Navy).** DEC is working to develop the protocol, line up lab and contractor resources, and obtain the necessary access to perform the sampling. The parties discussed whether additional wells should be sampled as part of this effort. The Navy and NG expressed their desire to have a larger dataset and their willingness to provide their share of the increase in costs. DEC indicated that the data must be defensible and expressed an interest to performing the sampling in a timely manner. The initial round of sampling could be performed on a smaller dataset and based on the analytical results, the program could then be potentially expanded. The parties agreed to schedule a conference call

to discuss this further. MWD is the only water district that would be participating in the conference call.

**9. Community outreach issues (open)**

- **Newsletter/handouts for non-Navy work (NG).** DEC will have a follow-up discussion with NG regarding possible options prior to the next RAB meeting scheduled for 4/20.

**10. Calendar review for dates for next quarterly meeting (target the first half of May).** During the meeting, May 12, 2016 was identified as the next meeting date. [Note: Due to a conflict that was identified after the meeting, the meeting date was changed. to May 10].